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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,413	10/16/2002	William O. Camp JR.	U02-0003.16	6740

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EXAMINER	
DANIEL JR, WILLIE J	

ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/065,413	CAMP, WILLIAM O.	
	Examiner	Art Unit	
	Willie J. Daniel, Jr.	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-15 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 16 October 2002 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2 and 3.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on

    a. 10 February 2003

    b. 04 March 2004

    is in compliance with the provisions of 37 CFR 1.97 and is being considered by the examiner.

Drawings

2. The drawings are objected to because

    a. Fig. 5 "ref. 600" refers to the mobile terminal that is stated as "ref. 500" on pg. 10, [0026], line 1.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing

figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 4, 6, 10-11, 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp (US 6,035,202) in view of Rabinowitz et al. (hereinafter Rabinowitz) (US 6,522,297 B1).

Regarding **Claim 1**, Camp discloses of a mobile unit (10) which reads on the claimed "mobile terminal" comprising:

a cellular telephone reception circuitry (90) which reads on the claimed "radio subsystem" operable to receive a radio signal (see col. 3, lines 36-46; Fig. 2);

a reception circuitry (115) which reads on the claimed "ranging signal receiving subsystem" for receiving FM, AM, or TV signal which reads on the claimed "terrestrial ranging signals", a terrestrial ranging signal comprising synchronization bursts which are equally spaced in time (see col. col. 2, line 66 - col. 3, line 9; col. 2, lines 60-63), where the mobile unit has reception circuitry that accepts TV signals in which the burst are approximately 0.1 seconds for equal spacing. The reception circuitry has other variants such as AM or FM signaling that can be used for location purposes in which the signals (TV, AM or FM) being terrestrial would be obvious. ;

a IF filter (145) which reads on the "common filter" operatively connected to the radio subsystem (90) and the ranging signal receiving subsystem (115), the common filter (145)

having a bandpass that is smaller than a bandwidth of the terrestrial ranging signal (see col. 3, lines 54-66; col. 4, lines 46-57), where the common filter is connected to the cellular telephone reception circuitry (90) and the FM, AM, or TV reception circuitry (115) in which the signal (i.e., FM, AM, or TV) is down converted to fit the bandpass of the cellular telephone. Camp fails to disclose having the feature a correlation subsystem operatively connected to the common filter, the correlation subsystem operable to enable recovery of the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter. However, the examiner maintains that the feature a correlation subsystem operatively connected to the common filter, the correlation subsystem operable to enable recovery of the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter was well known in the art, as taught by Rabinowitz.

In the same field of endeavor, Rabinowitz discloses the feature a correlator integrator (1516) which reads on the claimed "correlation subsystem" operatively connected to the bandpass filter (1507) which reads on the claimed "common filter", the correlation subsystem (1516) operable to enable recovery of the synchronization bursts by correlating the TV signal (402) which reads on the claimed "terrestrial ranging signal" with a known sequence that has been predistorted to account for the bandpass of the common filter (1507) (see col. 6, lines 43-52; col. 11, lines 10-24,49-53; col. 11, line 58 - col. 12, line 9; col. 12, line 60 - col. 13, line 3; col. 14, lines 13-34; Figs. 4, 13, 15), where the user terminal (102) receives TV signals that are down converted to a narrower bandpass for the bandpass filter in

which a correlator correlates the GCR signal burst of the TV signal that is used for locating the user terminal (102) (see col. 6, lines 43-52; Figs. 1-3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp and Rabinowitz to have the feature a correlation subsystem operatively connected to the common filter, the correlation subsystem operable to enable recovery of the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter, in order to autocorrelate the TV signal from the GCR burst for determining the position of the user terminal, as taught by Rabinowitz.

Regarding **Claim 2**, Camp lacks the feature wherein the correlation subsystem correlates the terrestrial ranging signal at least in part by searching a correlation window that is determined at least in part by an approximate location of the mobile terminal within a network. However, the examiner maintains that the feature wherein the correlation subsystem correlates the terrestrial ranging signal at least in part by searching a correlation window that is determined at least in part by an approximate location of the mobile terminal within a network was well known in the art, as taught by Rabinowitz.

Rabinowitz further discloses the feature wherein the correlation subsystem (1516) correlates the terrestrial ranging signal (402) at least in part by searching a correlation window that is determined at least in part by an approximate location of the user terminal (102) which reads on the claimed "mobile terminal" within a network (see col. 11, lines 51-53; col. 13, lines 33-64; col. 6, lines 1-42; Figs. 1-4, 14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp and Rabinowitz to have the feature wherein the correlation subsystem correlates the terrestrial ranging signal at least in part by searching a correlation window that is determined at least in part by an approximate location of the mobile terminal within a network, in order to autocorrelate the TV signal from the GCR burst for determining the position of the user terminal, as taught by Rabinowitz.

Regarding **Claim 4**, the combination of Camp and Rabinowitz discloses every limitation claimed, as applied above (see claim 1), in addition Camp further discloses of the mobile terminal (10) of claim 1 further comprising a shared mixer (140) operatively connected to the radio subsystem (90) and the ranging signal receiving subsystem (115) (see Fig. 2).

Regarding **Claim 6**, the combination of Camp and Rabinowitz discloses every limitation claimed, as applied above (see claim 2), in addition Camp further discloses the mobile terminal (10) of claim 2 further comprising a shared mixer (140) operatively connected to the radio subsystem (90) and the ranging signal receiving subsystem (115) (see Fig. 2).

Regarding **Claim 10**, Camp discloses a method of processing a terrestrial ranging signal in a mobile terminal (10) implementing a terrestrial ranging signal receiver, the method comprising:

receiving the terrestrial ranging signal (TV signals), the terrestrial ranging signal comprising synchronization bursts which are equally spaced in time (see col. col. 2, line 66 - col. 3, line 9; col. 2, lines 60-63), where the mobile unit (10) has reception circuitry that

accepts TV signals in which the burst are approximately 0.1 seconds for equal spacing. The reception circuitry has other variants such as AM or FM signaling that can be used for location purposes in which the signals (TV, AM or FM) being terrestrial would be obvious.;

passing the terrestrial ranging signal through a common filter having a bandpass that is smaller than the bandwidth of the terrestrial ranging signal, but substantially equal to or greater than the bandwidth of a native radio signal (see col. 3, lines 54-66; col. 4, lines 46-57), where the common filter is connected to the cellular telephone reception circuitry (90) and the FM, AM, or TV reception circuitry (115) in which the signal (i.e., FM, AM, or TV) is down converted to fit the bandpass of the cellular telephone. Camp fails to disclose having the feature recovering the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter. However, the examiner maintains that the feature recovering the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter was well known in the art, as taught by Rabinowitz.

Rabinowitz further discloses the feature recovering the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter (1507) (see col. 6, lines 43-52; col. 11, lines 10-24,49-53; col. 11, line 58 - col. 12, line 9; col. 12, line 60 - col. 13, line 3; col. 14, lines 13-34; Figs. 4, 13, 15), where the user terminal (102) receives TV signals that are down converted to a narrower bandpass for the bandpass filter in which a correlator correlates the

GCR signal burst of the TV signal that is used for locating the user terminal (102) (see col. 6, lines 43-52; Figs. 1-3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp and Rabinowitz to have the feature recovering the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter, in order to autocorrelate the TV signal from the GCR burst for determining the position of the user terminal, as taught by Rabinowitz.

Regarding **Claim 11**, Camp lacks the feature wherein the recovering of the synchronization bursts is accomplished at least in part by searching a correlation window that is determined by an approximate location of the mobile terminal within a network. However, the examiner maintains that the feature wherein the recovering of the synchronization bursts is accomplished at least in part by searching a correlation window that is determined by an approximate location of the mobile terminal within a network was well known in the art, as taught by Rabinowitz.

Rabinowitz further discloses the feature wherein the recovering of the synchronization bursts is accomplished at least in part by searching a correlation window that is determined by an approximate location of the mobile terminal (102) within a network (see col. 11, lines 51-53; col. 13, lines 33 - col. 14, line 11; col. 6, lines 1-42; Figs. 1-4, 14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp and Rabinowitz to have the feature wherein the recovering of the synchronization bursts is accomplished at least in part

by searching a correlation window that is determined by an approximate location of the mobile terminal within a network, in order to autocorrelate the TV signal from the GCR burst for determining the position of the user terminal, as taught by Rabinowitz.

Regarding **Claim 13**, Camp discloses a method of processing a terrestrial ranging signal in a mobile terminal implementing a terrestrial ranging signal receiver, the method comprising:

means (125) for receiving a terrestrial ranging signal (TV signals), the terrestrial ranging signal comprising synchronization bursts which are equally spaced in time (see col. col. 2, line 66 - col. 3, line 9; col. 2, lines 60-63), where the mobile unit (10) has reception circuitry that accepts TV signals in which the burst are approximately 0.1 seconds for equal spacing. The reception circuitry has other variants such as AM or FM signaling that can be used for location purposes in which the signals (TV, AM or FM) being terrestrial would be obvious.;

means (140) for passing the terrestrial ranging signal through a common filter having a bandpass that is smaller than the bandwidth of the terrestrial ranging signal, but substantially equal to or greater than the bandwidth of a native radio signal (see col. 3, lines 54-66; col. 4, lines 46-57), where the common filter is connected to the cellular telephone reception circuitry (90) and the FM, AM, or TV reception circuitry (115) in which the signal (i.e., FM, AM, or TV) is down converted to fit the bandpass of the cellular telephone. Camp fails to disclose having the feature means for recovering the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter. However, the examiner maintains that the feature means for recovering the synchronization bursts by correlating the terrestrial ranging signal with a

known sequence that has been predistorted to account for the bandpass of the common filter was well known in the art, as taught by Rabinowitz.

Rabinowitz further discloses the feature means for recovering the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter (1507) (see col. 6, lines 43-52; col. 11, lines 10-24,49-53; col. 11, line 58 - col. 12, line 9; col. 12, line 60 - col. 13, line 3; col. 14, lines 13-34; Figs. 4, 13, 15), where the user terminal (102) receives TV signals that are down converted to a narrower bandpass for the bandpass filter in which a correlator correlates the GCR signal burst of the TV signal that is used for locating the user terminal (102) (see col. 6, lines 43-52; Figs. 1-3). The means for recovery would be obvious.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp and Rabinowitz to have the feature means for recovering the synchronization bursts by correlating the terrestrial ranging signal with a known sequence that has been predistorted to account for the bandpass of the common filter, in order to autocorrelate the TV signal from the GCR burst for determining the position of the user terminal, as taught by Rabinowitz.

Regarding **Claim 14**, Camp lacks the feature wherein the means for recovering further comprises means for searching a correlation window that is determined by an approximate location of the mobile terminal within a network. However, the examiner maintains that the feature wherein the means for recovering further comprises means for searching a correlation window that is determined by an approximate location of the mobile terminal within a network was well known in the art, as taught by Rabinowitz.

Rabinowitz further discloses the feature wherein the means for recovering further comprises means for searching a correlation window that is determined by an approximate location of the mobile terminal (102) within a network (see col. 11, lines 51-53; col. 13, lines 33 - col. 14, line 11; col. 6, lines 1-42; Figs. 1-4, 14), where the means for recovering would be obvious.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp and Rabinowitz to have the feature wherein the means for recovering further comprises means for searching a correlation window that is determined by an approximate location of the mobile terminal within a network, in order to autocorrelate the TV signal from the GCR burst for determining the position of the user terminal, as taught by Rabinowitz.

Claims 3, 8, 12, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp (US 6,035,202) and Rabinowitz et al. (hereinafter Rabinowitz) (US 6,522,297 B1) as applied to claim 1, 10, and 13 above, and further in view of Rabinowitz et al. (hereinafter Rabinowitz) (US 20020144294 A1).

Regarding **Claim 3**, the combination of the Camp and Rabinowitz ('297) discloses wherein the correlation subsystem (1516) correlates the terrestrial ranging signal (402) at least in part by performing multiple correlations (see Rabinowitz ('297) - col. 11, lines 51-53; col. 11, line 59 - col. 12, line 9; col. 14, lines 13-35; Figs. 4, 15). The combination of Camp and Rabinowitz ('297) fails to disclose the correlations at times separated by one over a known rate of occurrence of the synchronization bursts. However, the examiner maintains

that the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts was well known in the art, as taught by Rabinowitz ('294).

In the same field of endeavor, Rabinowitz ('294) further discloses the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts (see pg. 5, [0074-0076]; Fig. 4), where the correlator uses the time samples of the segments for autocorrelation of the signal in which the segments of the signal relate to the synchronization bursts.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp, Rabinowitz ('297) and Rabinowitz ('294) to have the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts, in order to autocorrelate the TV signal of DTV towers for determining the location of a handset, as taught by Rabinowitz ('294).

Regarding **Claim 8**, the combination of Camp, Rabinowitz ('297), and Rabinowitz ('294) discloses every limitation claimed, as applied above (see claim 3), in addition Camp further discloses the mobile terminal (10) of claim 3 further comprising a shared mixer (140) operatively connected to the radio subsystem (90) and the ranging signal receiving subsystem (115).

Regarding **Claim 12**, the combination of the Camp and Rabinowitz ('297) discloses wherein the recovering of the synchronization bursts is accomplished at least in part by performing multiple correlations (see Rabinowitz ('297) - col. 11, lines 51-53; col. 11, line 59 - col. 12, line 9; col. 14, lines 13-35; Figs. 4, 15). The combination of Camp and Rabinowitz ('297) fails to disclose the feature correlations at times separated by one over a

known rate of occurrence of the synchronization bursts. However, the examiner maintains that the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts was well known in the art, as taught by Rabinowitz ('294).

Rabinowitz ('294) further discloses the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts (see pg. 5, [0074-0076]; Fig. 4), where the correlator uses the time samples of the segments for autocorrelation of the signal in which the segments of the signal relate to the synchronization bursts.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp, Rabinowitz ('297) and Rabinowitz ('294) to have the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts, in order to autocorrelate the TV signal of DTV towers for determining the location of a handset, as taught by Rabinowitz ('294).

Regarding **Claim 15**, the combination of the Camp and Rabinowitz ('297) discloses wherein the means for recovering further comprises means for performing multiple correlations (see Rabinowitz ('297) - col. 11, lines 51-53; col. 11, line 59 - col. 12, line 9; col. 14, lines 13-35; Figs. 4, 15), where the means for recovery and performing multiple correlations would be obvious. The combination of Camp and Rabinowitz ('297) fails to disclose the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts. However, the examiner maintains that the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts was well known in the art, as taught by Rabinowitz ('294).

Rabinowitz ('294) further discloses the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts (see pg. 5, [0074-0076]; Fig. 4), where the correlator uses the time samples of the segments for autocorrelation of the signal in which the segments of the signal relate to the synchronization bursts.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp, Rabinowitz ('297) and Rabinowitz ('294) to have the feature correlations at times separated by one over a known rate of occurrence of the synchronization bursts, in order to autocorrelate the TV signal of DTV towers for determining the location of a handset, as taught by Rabinowitz ('294).

Claims 5, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp (US 6,035,202) and Rabinowitz et al. (hereinafter Rabinowitz) (US 6,522,297 B1) as applied to claims 4 and 6 above, and further in view of Soliman (US 6,166,685).

Regarding **Claim 5**, the combination of Camp and Rabinowitz ('297) discloses every limitation claimed, as applied above (see claim 4), in addition Camp further discloses the mobile terminal (10) comprising a radio subsystem (90) and the ranging signal receiving subsystem (115) (see Fig. 2). The combination of Camp and Rabinowitz fails to disclose the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem. However, the examiner maintains that the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem was well known in the art, as taught by Soliman.

In the same field of endeavor, Soliman discloses the feature of a shared amplifier (336) operatively connected to the antenna system (330) for voice traffic which reads on the claimed "radio subsystem" and the antenna system (330) for position tracking system (e.g., GPS signals) which reads on the claimed "ranging signal receiving subsystem" (see col. 8, lines 32-60; Fig. 3), where the mobile station (300) has analog receiver (334) that amplifies the signals in which the amplifier would be obvious and the systems are operatively connected to amplifier (336).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp, Rabinowitz, and Soliman to have the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem, in order to amplify the signals received from the voice traffic and position tracking system, as taught by Soliman.

Regarding **Claim 7**, the combination of Camp and Rabinowitz ('297) discloses every limitation claimed, as applied above (see claim 6), in addition Camp further discloses the mobile terminal (10) comprising a radio subsystem (90) and the ranging signal receiving subsystem (115) (see Fig. 2). The combination of Camp and Rabinowitz fails to disclose the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem. However, the examiner maintains that the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem was well known in the art, as taught by Soliman.

Soliman further discloses the feature of a shared amplifier (336) operatively connected to the antenna system (330) for voice traffic which reads on the claimed "radio

subsystem" and the antenna system (330) for position tracking system (e.g., GPS signals) which reads on the claimed "ranging signal receiving subsystem" (see col. 8, lines 32-60; Fig. 3), where the mobile station (300) has analog receiver (334) that amplifies the signals in which the amplifier would be obvious and the systems are operatively connected to amplifier (336).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp, Rabinowitz, and Soliman to have the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem, in order to amplify the signals received from the voice traffic and position tracking system, as taught by Soliman.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Camp (US 6,035,202), Rabinowitz et al. (hereinafter Rabinowitz) (US 6,522,297 B1), and Rabinowitz et al. (hereinafter Rabinowitz) (US 20020144294 A1) as applied to claim 8 above, and further in view of Soliman (US 6,166,685).

Regarding **Claim 9**, the combination of Camp, Rabinowitz ('297), and Rabinowitz ('294) discloses every limitation claimed, as applied above (see claim 8), in addition Camp further discloses the mobile terminal (10) comprising a radio subsystem (90) and the ranging signal receiving subsystem (115) (see Fig. 2). The combination of Camp, Rabinowitz ('297), and Rabinowitz ('294) fails to disclose the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem. However, the examiner maintains that the feature of a shared amplifier operatively connected to the radio

subsystem and the ranging signal receiving subsystem was well known in the art, as taught by Soliman.

Soliman further discloses the feature of a shared amplifier (336) operatively connected to the antenna system (330) for voice traffic which reads on the claimed "radio subsystem" and the antenna system (330) for position tracking system (e.g., GPS signals) which reads on the claimed "ranging signal receiving subsystem" (see col. 8, lines 32-60; Fig. 3), where the mobile station (300) has analog receiver (334) that amplifies the signals in which the amplifier would be obvious and the systems are operatively connected to amplifier (336).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Camp, Rabinowitz ('297), Rabinowitz ('294), and Soliman to have the feature of a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem, in order to amplify the signals received from the voice traffic and position tracking system, as taught by Soliman.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie J. Daniel, Jr. whose telephone number is (703) 305-8636. The examiner can normally be reached on 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WJD,JR/wjd,jr
23 July 2004

CHARLES APPIAH
PRIMARY EXAMINER